

NORTH CAROLINA
RECYCLING BUSINESS
ASSISTANCE CENTER

Recycling Works

Volume 6, Number 2

Spring 2000

A cooperative effort of the N.C. Department of Environment and Natural Resources and the N.C. Department of Commerce.

Recycled newsprint key ingredient in high performance insulation

Vertical integration and value-added products spur development of U.S. Fiber

By Matt Ewadinger, RBAC Manager, and Jason Hale, Market Development Specialist

When old newspapers (ONP) are collected for recycling in Charlotte, N.C., they enter FCR Inc.'s material recovery facility (MRF), where they are separated from other recyclables and leave the facility as packaged cellulose insulation. This manufacturing activity occurs at the new U.S. Fiber cellulose insulation plant now operating within the FCR MRF. This insulation plant is one of six owned and operated by FCR and serves as a model of efficiency and textbook vertical integration for recyclers and other manufacturers alike.

History

As reported in the November 1998 issue of *Recycling Works*, KTI Inc. acquired Charlotte-based FCR Inc. in August 1998. U.S. Fiber Inc. FCR's insulation division was created in May 1997 with the acquisition of cellulose insulation plants located in Ronda, N.C., and Tampa, Fla. These plants process old newsprint (ONP) to make cellulose insulation material for sale to the manufactured housing industry and insulation contractors. During 1997, U.S. Fiber acquired additional plants in Ohio and Oregon.

(See Recycled newsprint, Page 8)



U.S. Fiber workers bag compressed blocks of cellulose insulation made from recycled newsprint.

Inside

- Feedstock conversion grants awarded . . . 2
- Markets Assessment commodity profile . . . 3
- CRA Conference recap 4
- National Recycling Coalition conference . . . 5
- What's new ... in business 5
- Union Gypsum begins processing 6
- 2000 county tier designations announced . . 7
- Electronics recycling workshops 7
- Sawmill expands into recycling and composting . 8

Feedstock conversion grants award \$30,000

By Tom Rhodes, Market Development Specialist

RBAC recently awarded a total of \$30,000 in grants to two North Carolina businesses to assist with the development of feedstock conversion projects.

Feedstock conversion, the process of using recycled content materials instead of virgin raw materials to manufacture end products, is an important link in the development of the recycling infrastructure.

Two North Carolina companies, Matrix Fibers Corp., located in Charlotte, and Wellmark Inc., near Asheboro, have each been awarded grants of \$15,000 to develop production lines that will manufacture raw materials from waste products that otherwise would have been landfilled. Both companies' projects involve the purchase of additional machinery that will be used to reprocess and upgrade the waste products to turn them into viable feedstock, which will be used to manufacture plastic end products.

Matrix has developed technology to convert waste fiberglass reinforcement into marketable products. Prior to the development of this technology, the waste fiberglass material was being disposed in a landfill. The grant will assist Matrix to further upgrade its facility to create a production line that will convert recovered glass-filled polypropylene for use in the manufacture of sports and recreation equipment.

Wellmark processes recovered plastic dye tubes and fiber from textile industry products for use as a manufacturing feedstock. Although the plastic was previously being disposed in landfills, Wellmark has been able to regrind and re-compound the plastic to create feedstock for use in the automotive part manufacturing industry. Wellmark will use the grant to purchase machinery to improve efficiency to increase throughput of materials by 50 percent or more.

LOANS FOR RECYCLING COMPANIES

A Project of the N.C. Environmental Loan Fund

Commercial and SBA Loans from \$10,000 to \$2.5 million for Collection, Processing, Composting, Reuse, Organics, Recycling Equipment, and End-Use Manufacturing.

Need a loan with reasonable interest rates and flexible underwriting standards? We may have the answer! Self-Help has the expertise and programs to help recycling businesses throughout North Carolina. Call today to learn how a Self-Help loan can strengthen your enterprise.



CO-SPONSORED BY:

SELF HELP



1.919.956.4400

www.self-help.org

N.C. Environmental Loan Fund: Self-Help established the N.C. Environmental Loan Fund to provide financing to small businesses and other organizations that preserve our natural resources. Projects that are targeted for financing include recycling firms, land conservancies, environmental consulting and services, environmental equipment firms, and sustainable development products and services. Self-Help has extended more than \$6 million in financing to this growing and important segment of our economy.

RBAC Web site updated

www.p2pays.org/rbac

To maximize the ease and efficiency of access to recycling business resources, RBAC strives to provide detailed information on its Web site: <http://www.P2pays.org/rbac>. Information available includes:

Business Development Assistance

Financing

Recycling Markets Assistance and Directory of Markets for Recyclable Materials

Partnerships

Key Resources

Links

The Web site has been updated with RBAC client needs in mind and includes many essential resources and links to information for starting or expanding a recycling business in North Carolina. Please contact John Blaisdell at 919.715.6522 or e-mail John.Blaisdell@ncmail.net if you have changes or suggestions for materials or links you would like to see added to the Web site.

electronics

GLASS

organics

White Goods

metals

textiles

toil-related

C&D

Wood

tires

1998

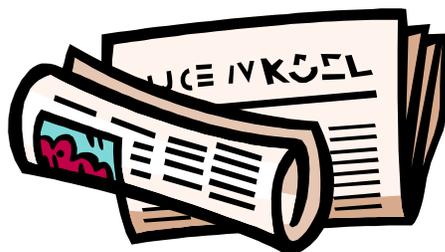
NORTH CAROLINA

Markets Assessment

OF THE RECYCLING INDUSTRY AND RECYCLABLE MATERIALS

Old Newspapers

By Jason Hale, Market Development Specialist



This article highlights information contained in the "1998 Markets Assessment: Construction and Demolition Debris." The commodity profile may be downloaded in its entirety at <http://www.p2pays.org/ref/02/01622.htm/index.htm>.

Traditionally, old newspapers (ONP) have been recovered from the waste stream and used as feedstock for a variety of recycled products, including newsprint, paperboard, tissue, containerboard, molded pulp, animal bedding, insulation, and as a bulking agent for compost. There are four grades of ONP, with the premium – known as Number 8 News – being the most widely traded. Number 8 News boasts the smallest level of contaminants and is the most sought after grade for recycled newsprint mills, the single largest end users of recovered ONP.

See Markets Assessment, page 9.

2000 Carolina Recycling Association Conference and Trade Show Spotlights recycling market development

By Tom Rhodes, Market Development Specialist



Above: Tom Rhodes introduces a distinguished panel of finance experts, providers, and recipients.
Right: Anne Claire Broughton responds to an inquiry from a conference attendee.



Top Right: Rodney Shaver discusses Phoenix Recycling's construction and demolition processing facility.

Above: Robert Gleaves (Blue Ridge Recycling), Laura Buchanan (EnviroChem Environmental Services Inc.), and Lizzie Ellis (ExplorNet) participate in "Thinking Outside of the(Curbside Collection) Box" session.

The tenth Carolina Recycling Association (CRA) Conference and Trade Show presented a variety of market development success stories. The conference, held March 13 through 15 at the Grove Park Inn, Asheville, N.C., featured presentations about new market trends for curbside collection, organics, commercial/industrial recovery programs and financial tools available for starting and growing recycling businesses.

Each year, CRA highlights recycling programs and businesses during its conference. This year's "Shoot for the Stars" conference and trade show was better than ever, showcasing new and innovative businesses and industries along with new technologies for waste reduction and recycling.

In the session "How To Fund A Recycling Business," valuable information was shared about how to fund a recycling business, The Southeast Recycling Investment Forum, and

how recycling businesses can seek investors through the forum. Other sessions, such as "Developing the Construction and Demolition Infrastructure," "Salvage and Reuse," and "Clean Construction Wood" featured green building and deconstruction practices.

One fact made evident throughout the conference is that recycling creates jobs and capital investment in addition to contributing significantly to both private and public sector waste reduction efforts in the Carolinas.

Although too numerous to mention individually, all CRA speakers were informative and the sessions were on target. The energy of this year's CRA Conference and Trade Show was very upbeat. Overall comments about the conference from attendees have been notably positive and most attendees expressed optimism that recycling is riding a new and invigorated wave. For information about membership in CRA, contact Kim Henley at 919.851.8444.

N.C. recycling companies will shine at national conference

Several N.C. recycling companies will be showcased for their innovation and success to a national audience of recycling professionals at this year's National Recycling Coalition (NRC) conference. The conference, to be Sept. 10 through 13 in Charlotte, N.C., is expected to draw more than two thousand attendees from locations nationwide.



NRC is a non-profit coalition of diverse individuals committed to maximizing recycling in order to achieve the benefits of resource conservation, effective solid waste management or waste reduction, environmental production, energy conservation, and social and economic development. During its annual conference, NRC arranges numerous tours of local recycling facilities to highlight some of the region's more cutting edge, sustainable, and / or efficient recycling endeavors for the edification of the attendees. Many companies to appear on the tour list have been featured in various editions of this newsletter.

For more information about this conference, contact Kim Henley of the Carolina Recycling Association at 919.8518444. If you are interested in having your facility highlighted in a tour, contact Jason Hale of RBAC at 800.763.0136 or 919.715.6542.

CALL FOR BUSINESS PLANS

RECYCLING AND ENVIRONMENTAL BUSINESSES:
Need financing? Then mark your calendars!



**5TH ANNUAL SOUTHEAST
RECYCLING AND
ENVIRONMENTAL BUSINESS
INVESTMENT FORUM**

Sept. 20, 2000
Adam's Mark Hotel, Charlotte, N.C.
Business plans due June 23, 2000

We are giving you plenty of notice to update your business plan in preparation for this event. For more information about the forum or to discuss how it could help your business, please contact Ted Campbell at 803.737.0477 or tcampbel@commerce.state.sc.us. Look for more details in the next issue of *Recycling Works*.

What's new . . . in business

In Business is a bi-monthly publication that conveys information about creating sustainable enterprises and communities. It frequently highlights innovative, environmentally-friendly business endeavors and concepts. Three such endeavors, which were featured in the Fall issue, are described below.

Interface Inc.: Following its CEO's challenge to become less damaging to the planet, this Atlanta-based company is in the early stages of designing compostable and recyclable carpet tile. It has already added a recyclable carpet tile to its product line, and set up a leasing concept so that it can recover used tile for reuse.

Seventh Generation: Marketing nontoxic and environmentally-friendly household products to natural food stores, supermarkets, and mail order catalogs in the United States and Canada is proving very profitable for this organization, which saw a 23 percent sales increase in the third quarter of 1999, reaching over \$2.6 million. The company has announced that its board of directors has approved a transaction to convert the organization to a private company.

Triad Energy Resources: Turning organic wastes into profits is the specialty of this California-based company, which processes and / or brokers a multitude of waste streams otherwise destined for the landfill. Triad recycles gypsum and gypsum wallboard, and composts such diverse materials as tea dust, Chinese mitten crabs, humic acid from mining operations, shrimp shells, spent mushroom compost, and spent sugar filtration material.

Union Gypsum begins processing

By John Blaisdell, Market Development Specialist

Steve Davis's gypsum recycling business is a great example of how one company can affect a local area's supply and demand for a recyclable product. Davis is able to reduce the quantity of debris entering the local landfill, thus conserving landfill space, while producing a product that replaces a locally demanded, virgin agricultural product.

Davis, the owner of a well-established drywall contracting business in Marshville, N.C., started looking into recycling to avoid the thousands of dollars per year he was paying in landfill tipping fees. Partially through grant funding from the N.C. Division of Pollution Prevention and Environmental Assistance (DPPEA) 2000 Construction and Demolition Debris Recycling Grant Cycle (See related article in the Winter 1999-2000 issue of *Recycling Works*), Davis was able to purchase the buildings and equipment necessary to process his residual gypsum materials. He now sells his ground gypsum at a discount to local farmers in place of the virgin agricultural gypsum they would otherwise purchase at a premium price.

Gypsum is a large component of the construction and demolition (C&D) debris waste stream. According to the National Association of Home Builders, approximately one ton of residual gypsum is generated at the average new residential construction site. (See "A Look at Gypsum Generation" below). Thus, drywall contractors or homebuilders are left with a large quantity of material they must either dispose or attempt to recycle at each job site. That realization, coupled with Davis's knowledge of the need for agricultural gypsum in the local farming industry, led him to the decision to enter the recycling industry.

Last summer, Davis purchased some former farming land with existing turkey barns, which were ideal for storing his ground product. He then installed the scales and grinding equipment and began processing gypsum in February 2000.

Davis expects to process approximately 6,000 tons of gypsum in his first year, making a major impact on the local waste stream.

For more information about Union Gypsum, contact Davis at 704.624.2077. For more information on construction and demolition debris recycling, download the 1998 North Carolina Markets Assessment of the Recycling Industry and Recyclable Materials online at <http://www.p2pays.org/ref/02/01622.htm> or call 919.715.6500 to obtain a paper copy.

Steve Davis (right) receives a certificate for a DPPEA 2000 C&D Recycling Grant from RBAC's John Blaisdell, a market development specialist.



Steve Davis operates his grinding and dust collection systems.

A Look at Gypsum Generation

According to the National Association of Home Builders Research Center, the construction of an average 2,000 square foot house generates approximately one ton of scrap drywall (or one pound per square foot of new residential construction). To calculate the approximate generation of scrap drywall in your county, follow the example below.

Wake County 1997 Scrap Gypsum Generation from New Construction

Units:	Single Family	Multi Family	Total
Number of Units (1997): ¹	8,013	2,086	10,099
Estimated Avg. Square Footage Per Unit: ²	2,150	1,095	3,245
Estimated Total Square Footage:	17,227,950	2,284,170	19,512,120
Estimated Tons of Scrap Gypsum (Assuming 1 ton per 2000 square feet): ³	8,614	1,142	9,756

Sources:

- 1) N.C. Dept of Labor Web Site - Housing Start Statistics by County: <http://www.dol.state.nc.us/stats/1997-1.htm>
- 2) National Association of Home Builders Web Pages, "Characteristics of New Single-Family Homes: 1975-1997" and "Characteristics of New Multifamily Buildings: 1975-1997" <http://www.nahb.com/sf.html> and <http://www.nahb.com/mf.html>
- 3) National Association of Home Builders Research Center, 1996.

N.C. Department of Commerce announces 2000 county tier designations

By John Nelms, Industrial Development Specialist

A significant North Carolina economic development tool is the William S. Lee Quality Jobs and Business Expansion Act. The Lee Act was enacted in 1996 and amended in 1998. It provides tax credits that may be taken against state income, franchise, or gross premiums tax burdens. These credits for job creation, investment, worker training, and research and development are available in all 100 North Carolina counties and are based on a county's level of economic distress.

As outlined in the Lee Act, the Commerce Department annually evaluates North Carolina's 100 counties and assigns a tier designation ranging from one to five, with one being the most economically distressed and five being the least. This year, 33 counties changed tiers, a reflection of legislation passed last year and fluctuations in population growth, unemployment rate, and per capita income.

The year 2000 tier designations are in the table below.

Investment Tax Credit Thresholds	Job Creation Tax Credit Values
Tier I - \$0	Tier I - \$12,500
Tier II - \$100,000	Tier II - \$4,000
Tier III - \$200,000	Tier III - \$3,000
Tier IV - \$500,000	Tier IV - \$1,000
Tier V - \$1,000,000	Tier V - \$500

Year 2000 Tier Designations

TIER 1	TIER 2	TIER 3	TIER 4	TIER 5
ALLEGHANY	ANSON	AVERY	ALEXANDER	ALAMANCE
ASHE	BLADEN	CASWELL	BRUNSWICK	BUNCOMBE
BEAUFORT	HOKE	CHOWAN	BURKE	CABARRUS
BERTIE	MADISON	CLEVELAND	CALDWELL	CATAWBA
CAMDEN	MITCHELL	CUMBERLAND	CARTERET	CHATHAM
CHEROKEE	MONTGOMERY	CURRITUCK	CRAVEN	DAVE
CLAY	ONSLow	DARE	DAVIDSON	DURHAM
COLUMBUS	PAMLICO	DUPLIN	FRANKLIN	FORSYTH
EDGEcombe	PASQUOTANK	GATES	GASTON	GUILFORD
GRAHAM	ROBESON	GREENE	GRANVILLE	HENDERSON
HALFAX	VANCE	HAYWOOD	HARNETT	IREDELL
HERTFORD		JACKSON	LINCOLN	JOHNSTON
HYDE		LENOIR	NASH	LEE
JONES		MACON	PENDER	MECKLENBURG
MARTIN		MCDOWELL	PIERSON	MOORE
NORTHAMPTON		POLK	PITT	NEW HANOVER
PERQUIMANS		ROCKINGHAM	ROWAN	ORANGE
RICHMOND		RUTHERFORD	SURRY	RANDOLPH
SCOTLAND		SAMPSON	WILKES	STOKES
SWAIN		STANLY		TRANSYLVANIA
TYRRELL		WATAUGA		UNION

The tiers determine the threshold for the investment tax credit and the amount of job creation tax credit for which a business is eligible. The investment tax credit is equal to seven percent of value of machinery and equipment placed in service in North Carolina by eligible new and expanding businesses. The credit is taken in equal installments during the seven years subsequent to when the equipment is first placed in service. Firms with at least five full-time employees working 40 or more weeks a year during the taxable year can take the job creation tax credit for each new full time job(s) created during that taxable year. Credit is to be taken in equal of more than four years following the year of the hire.

If you have any questions, call the Commerce Finance Center at 919.733.5297.

electronics recycling WORKSHOPS



Circuit boards for recycling at Southern Resources in Charlotte, N.C.

RBAC and Southern Waste Information Exchange (SWIX) will sponsor two one-day workshops on electronics recycling in Raleigh and Charlotte this fall (exact dates to be announced in the next issue of *Recycling Works*). The workshops are intended to address the current status of electronics recycling in North Carolina, markets for electronics, establishing recycling programs for local governments and the private sector, and regulatory considerations of handling, disposing, and recycling electronics.

For more information, contact John Blaisdell at 919.715.6522 or by e-mail: John.Blaisdell@ncmail.net

Sawmill expands into wood waste recycling and composting

By Craig Coker, Environmental Specialist/Organics Recycling Coordinator

Western North Carolina (WNC) Pallet and Forest Products Company in Asheville is one of the oldest sawmill and pallet operations in the state. The company currently generates nearly 20,000 cubic yards of wood waste annually. Wood wastes from this 25-year old sawmill have been stockpiled for many years at a nearby site.

Recognizing that outlets for this wood waste were becoming increasingly limited, WNC created Mountain Organic Materials (MOM) LLC in 1998 specifically to handle that wood waste stream by converting the waste into marketable products. MOM is managed by Keith Warren, who has a background in manufacturing engineering technology and a master's degree in business administration.

Bark residuals from the sawmill are processed into mulches and sold by MOM to the public at the wood residuals stockpile site. In addition, MOM has developed a unique aerated compost bin design to process the sawmill's saw-

dust and shavings. This waste stream is mixed with dairy manure at a nearby dairy farm and composted in aerated compost bins. The resulting compost is mixed with fines from the mulch preparation process and sold as topsoil and potting soil.

The aerated compost bins use a proprietary aeration delivery system. The walls of the bins themselves are manufactured in a unique manner, using large concrete blocks created by a local concrete company as an outlet for leftover concrete returning to the yard at the end of the day. These blocks are 3' long, 2' thick, and 2' tall. They are formed with a tongue-and-groove system that allows them to be easily assembled and interlocked to form retaining walls.

MOM and WNC Pallet and Forest Products Company have been very successful in converting a problematic waste stream into value-added products with strong market demand.

Recycled newsprint, from cover

In January 1998, U.S. Fiber opened a new manufacturing facility in Arizona and in the first quarter of 1999 opened their sixth plant in Texas.

The Ronda plant was recently closed and North Carolina operations are now based in the FCR 130,000 square foot material recovery facility (MRF) in Charlotte. This cellulose insulation plant currently employs 32, has a throughput of about 120 tons per day, and the capacity to process up to 200 tons per day.

The Process

As recovered fiber travels along a conveyor system through the FCR MRF, different grades are pulled out and placed in separate containers. This is done until all material has been removed from the conveyors except ONP, which is the largest material present by volume. This ONP is allowed to follow the conveyor system across the MRF until it is deposited into a raw material storage area for U.S. Fiber.

While typical cellulose insulation plants would acquire all of their fiber feedstock from outside sources in baled form, then break apart each bale prior to its use in the manufacturing process, the placement of this U.S. Fiber plant in a MRF allows it to inject significant amounts of loose fiber directly into its system. According to Larry Taylor, the U.S. Fiber plant manager, this capability makes the process much more expeditious and efficient.

This loose ONP is lifted by a bobcat and deposited into the hopper of a shredding device known as a hog or paper table. The ONP is shredded and then travels into a paper tank for fiberization. The material is then mixed with fire retardants and sent to another paper tank where it is compressed and cubed for packaging. The packaged insulation follows a series of conveyors directly into a truck, where it is stacked and shipped to customers.

The Products

The finished cellulose insulation products SAB (spray applied blanket) Light Density and Sun Guard II (closed cavity wall spray-on) are marketed in 30-pound bags that are manufactured from a combination of recycled fibers, dry adhesives, and fire resistant chemicals. The products do not contain asbestos, fiberglass, or mineral wool. According to Taylor, "In addition to superior sound absorption, cellulose-insulated buildings consume an average of thirty-two percent less kilowatts of electricity than conventionally-insulated buildings in comparative tests." The finished product is composed of 88 percent ONP and 12 percent fire retardants, such as ammonium sulfate and boric acid. Boric acid also acts as a deterrent for common household insects and pests.

The addition of U.S. Fiber to the KTI/FCR family completes the ONP vertical integration chain. "Now we are able to market our own value-added product, rather than selling baled ONP on the open market," said Taylor.

Estimated Supply of Newsprint in North Carolina

	1997	2002
Generation (tons)	282,412	299,673
Recovery (tons)	159,594	169,611

Source: AF&PA and North Carolina S.W. Management Annual Report 1996-97.

Supply

In 1997, more than 282,000 tons of newsprint were generated in North Carolina. That year, North Carolina achieved a 57 percent recovery rate for newsprint, which is slightly above the national recovery rate of 54 percent. Of the tonnage recovered, local governments collected 121,000 tons, or 76 percent, while the private sector accounted for the remaining 24 percent (38, 000 tons).

From 1992 to 1997, local government recovery of ONP increased by 28 percent, although the overall quality of material collected declined. This lower quality was due mainly to the consistently low prices for Number 8 News, which caused the additional costs associated with material separation to be difficult to justify.

Demand

The American Forest and Paper Association reported the amount of recovered ONP rose in 1997 due to an increase in domestic mill consumption. While various technical and economic factors affect demand decisions at mills, the increase in domestic demand for ONP can be attributed to three factors: the strong economy and the consequent demand for newsprint advertisements, increased recycled newsprint capacity due to mill improvements in production efficiency, and the underlying effect of state governments' minimum recycled content newsprint regulations.

Demand for ONP remains strong in North Carolina and the Southeast region. Because of the presence of some of the largest newspaper mills in the nation, the region consumed almost 26 percent of the total domestic demand for recovered newspapers in 1997. The five major newsprint mills in the Southeast, which constitute a majority of ONP demand, are described below.

- In 1997, Alabama River Newsprint Co., Perdue Hill, Ala., produced 245,000 tons of newsprint sheet with approximately 115,500 tons of recovered paper feedstock. In 1997, only about 2.5 percent of the recovered feedstock was obtained from North Carolina.

- In 1997, Augusta Newsprint Company, Augusta, Ga., produced 35 percent recycled content newsprint with approximately 160,000 tons of Number 8 ONP. Approximately 15 percent of the recovered ONP was supplied by North Carolina sources.
- In 1997, Bear Island Paper Co., L.L.C., Ashland, Va., produced newsprint with approximately 28 percent recovered paper feedstock. In 1997, Bear Island obtained 12 percent of its total 92,000 tons of recovered feedstock from North Carolina.
- Bowater, Calhoun, Tenn., produces newsprint using an average feedstock ratio of 80 percent virgin and 20 percent recovered paper. The Calhoun mill obtained between 30,000 and 50,000 tons of ONP in 1997 from North Carolina.
- In 1997, Southeast Paper Manufacturing Company & Southeast Recycling Corporation, Dublin, Ga., produced 530,000 tons of 100 percent recycled content newspaper. In 1997, Southeast Recycling acquired 30,000 tons, roughly four percent of its ONP supply, from North Carolina.

To receive the 1998 Markets Assessment, call (919) 715-6500 or visit this Web site: <http://www.p2pays.org/ref/02/01622.htm/index.htm>.

Recycling Works is published by the N.C. Recycling Business Assistance Center (RBAC), a program of the Division of Pollution Prevention and Environmental Assistance of the N.C. Department of Environment and Natural Resources (DENR). For more information call (919) 715-6500 or (800) 763-0136, or write to DPPEA, 1639 Mail Service Center, Raleigh, NC 27699-1639.

James B. Hunt, Jr., Governor, North Carolina

Bill Holman, Secretary, Department of Environment and Natural Resources



Division of Pollution Prevention and Environmental Assistance

Gary Hunt, Director
 Scott Mouw, Chief, Community & Business Assistance Section
 Matt Ewadinger, RBAC Manager
 Jason Hale, RBAC Market Development Specialist
 John Blaisdell, RBAC Market Development Specialist
 John Nelms, RBAC Industrial Development Specialist
 Tom Rhodes, RBAC Market Development Specialist
 Sharon Gladwell, DPPEA Information & Communications Specialist





Reduce Reuse Recycle

The Recycling Business Assistance Center (RBAC) is a program of the North Carolina Division of Pollution Prevention and Environmental Assistance.

Call (919) 715-6500 or 1-800-763-0136 for free technical assistance and information about preventing, reducing, and recycling waste.

North Carolina market prices for recyclables

Prices current as of April 12

Item	Western Region	Central Region	Eastern Region
METALS			
Aluminum Cans, lb. loose	\$0.53	\$0.57	\$0.58
Steel cans, gross ton baled	\$43	\$36	\$25
PLASTICS			
	Central Region markets plastics together		
PETE, lb. baled	\$0.11	\$0.04	\$0.11
HDPE, lb. baled	\$0.16	\$0.04	\$0.17
PAPER			
Newsprint, ton baled	\$85-\$95	\$65	\$113
Corrugated, ton baled	\$115-125	\$100	\$118
Office, ton baled	\$175	n/a	\$250
Magazines, ton baled	n/a	\$60	**
Mixed, ton baled	\$50	n/a	\$50
GLASS			
Clear, ton crushed	\$42	\$40	\$25
Brown, ton crushed	\$24	\$30	\$21
Green, ton crushed	\$15	\$0	\$2
**Facility sells magazines with newsprint. Note: Prices listed above are compiled by RBAC and are for reference only. These prices are not firm quotes. RBAC obtained pricing information from processors for each category and developed a pricing range.			

Visit RBAC online at

<http://www.p2pays.org/rbac1.htm>



NORTH CAROLINA
RECYCLING BUSINESS
ASSISTANCE CENTER

**N.C. RECYCLING BUSINESS
ASSISTANCE CENTER**
DIVISION OF POLLUTION PREVENTION
AND ENVIRONMENTAL ASSISTANCE
1639 MAIL SERVICE CENTER
RALEIGH, NC 27699-1639

Bulk Rate
U.S. Postage
PAID
Permit No. 1422
Raleigh, NC

ADDRESS SERVICE REQUESTED

DPPEA-FY99-65.
950 copies of this
public document
were printed on
recycled paper at a
cost of \$284.54, or
\$0.30 per copy.